

Perceived Home Literacy and Reading Performance among Adolescent Brazilian Students

Marco Aurélio da Silva Baltar, Márcia Maria Peruzzi Elia da Mota

Universidade Salgado de Oliveira, Rio de Janeiro, Brasil

Email: mrcbalt@hotmail.com

How to cite this paper: da Silva Baltar, M. A., & da Mota, M. M. P. E. (2016). Perceived Home Literacy and Reading Performance among Adolescent Brazilian Students. *Creative Education*, 7, 2836-2844.

<http://dx.doi.org/10.4236/ce.2016.718263>

Received: November 17, 2016

Accepted: December 23, 2016

Published: December 26, 2016

Copyright © 2016 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Although there has been a large amount of research on reading performance among Brazilian children, very little has been done on both home and school experiences and their influence on children's literacy and language skills and research has focused on children rather than on adolescent samples. The main question we ask on this study is whether perceived early print experience by adolescents and reading enjoyment relates to students reading performance in present day. Thirty-one adolescents participated in this research. They were enrolled in middle school and were from less affluent areas of the State of Rio de Janeiro. They answered a questionnaire about their perceived home literacy experiences in early age, a reading enjoyment scale and three reading measure tests. The results of the correlations carried out in the data showed that teenagers with higher home literacy scores made fewer errors in reading single words.

Keywords

Reading, Home Literacy, Word Recognition, Reading Enjoyment

1. Introduction

Despite the recent changes in Brazilian economy that had reflection on social indicators, Brazil still faces a big challenge where education is concerned. One of the problems faced by Brazilian students is reading problems. Oliveira and Santos (2008), for example, found that the scores of Brazilian University students in a reading comprehension test were low and that none of them could achieve the top score on the reading test used. Unexpected reading difficulties may appear in adolescence and school has to be able to deal with them.

Students' reading difficulties may persist up to higher education (Oliveira, 2011). Although there has been a large amount of research on reading performance among Brazilian children, very little has been done on both home and school experiences and their influence on children's literacy and language skills (Cardoso & Mota, 2015). Moreover, most of this research has been conducted with children and little is known about how early literacy experiences affect reading development in later years.

Factors that affect adolescent reading were investigated in other countries (Yeung & King, 2016). Kairaluoma et al. (2013) examined adolescents' reading difficulties in Finland. In their study they compared several reading and language processing measures, such as word reading, pseudoword reading, and text reading speed and accuracy, rapid naming and phonological processing between poor readers and normally developing readers. Their results indicated that poor reading among the adolescents studied was characterized by slow reading speed, which was linked to slow rapid naming performance. In addition to reading speed, reading accuracy problems were observed in pseudoword reading suggesting that weakness in decoding can be important to reading achievement in transparent orthographies.

Kairaluoma et al. (2013) study shows that reading problems can be observed in teenage years. However, the authors did not investigate social and cultural factors such as home environment and reading experiences and its relationship to reading problems. Those may be particularly important in developing societies. Brooks-Gunn, Duncan and Britto (1999) point out that socioeconomic status effects on school achievement can be weaker for adolescents than for early and middle school children, but they still can persist into adolescence.

Thus, studies should look also at factors such as how reading enjoyment and reading experiences effect in reading development. In fact a study carried in 43 countries by Chiu and McBride-Chang (2006) showed that fifteen-year-olds' family socioeconomic status, number of books at home, and enjoyment of reading positively correlated with individual reading achievement. The authors argue that a comprehensive model of reading achievement must include social and cultural variables.

A study carried out in Brazil investigated reading practices of 6th and 7th grade Brazilian children. The results show that measures of reading of reading experience like reading comic books and *Mangá* negatively correlated with reading comprehension but the amount of school reading positively correlated with this comprehension of written text (Baptista et al., 2016).

In fact in developing countries, a larger percentage of the population living under the poverty threshold, are likely to influence the home experiences of children in these countries. Home environment has been shown to be influenced by economic and cultural factors (Mota, 2014; Mota, Baptista, & Amaral, 2014; Strasser & Lissi, 2009).

One aspect of home environment that may be affected by poverty is book access. It has been shown that book access may enhance literacy skills. In an US study, Neuman (1999) carried out an intervention study that investigated the effect of book access in children's early literacy achievement. She showed that physical access to books en-

hances children's performance in early literacy skills and interventions promoting book access may help children's literacy achievement.

Access to books in Brazil is difficult and stems from having few public libraries and a large low income population. Books are costly and may be more expensive than many essential items such as food or clothing. Given these characteristics, it is reasonable to expect joint storybook reading in developing countries, such as Brazil to be less frequent than in developed countries. Additionally, less experience with book reading may affect reading development.

In fact a study carried out in a Latin American country showed that this is the case but this issue may be more complicated than it was first thought. [Strasser and Lissi \(2009\)](#) studying Chilean children investigated characteristics of the home literacy environment of young children from different social backgrounds. Families in their sample did not engage frequently in shared reading with children and had few children's books at home than it is reported in developed countries such as the US, even when minority families are considered. Although, these results may be partly explained by low income, the high price of books and issues of related to book access, those aspects are not sufficient to explain the low estimates found. Even parents from affluent background did not engage frequently in reading practices with their children. For their sample only 3.7% of parents with higher education reported daily reading to their child in the past week.

In a study carried out with a Brazilian sample [Cardoso e Mota \(2015\)](#) investigated parent-child reading related practices among 5 and 6 year old low and high income families and its relationship to early literacy skills. Home Literacy practices correlated significantly to literacy skills and high income children had more reading related interactions with their parents than low income children. They also had overall better results on the tasks. These results point out to cultural effects, more than simple economical ones, as important to reading development when one is considering reading practices across cultures.

It is also possible that early reading practices have long term effects. There has been little research looking at this long term relationship. Knowing about factors related to their reading achievement provides valuable information for developing interventions aiming to improve their reading achievement.

The present study is concerned with how adolescents and young adults perceived their early reading experiences and whether those are related to reading achievement in their present day schooling. Although a lot has been said about the importance of print experiences and reading, there are not enough Brazilian data clarifying this issue. The main question we ask is whether perceived early print experience by adolescents and reading enjoyment relates to students reading performance in present day.

2. Method

2.1. Participants

Thirty-one adolescents participated in this research. They were high school students and post-undergraduate Vocational Technical courses of a state school at the State of

Rio de Janeiro. Although, they were of different social classes, the participants of this sample are mostly residents of the northern area of Rio de Janeiro and “baixada Fluminense”. Those are less affluent areas of the state. These students desire a fast entry into the labour market and not a higher level college education that is why they choose technical qualification courses. The students were aged between 15 and 22 years, of both sexes. The average age of the students was 18.87 (sd = 1.97). Underage participants parents’ had to sign an informed consent form, which was submitted and approved by the ethics and Research Committee.

2.2. Instruments

2.2.1. Reading Evaluation

1) School performance test (TDE) (Stein, 1994). This aims to verify the student’s overall performance and individual performance in reading, writing and arithmetic. In this research, we used only the reading subtest, which consists of a list of 70 words that must be read by teenagers out loud. This task presents good internal consistency index with coefficient of Cronbach alpha of 0.98. The subtest was applied and corrected in accordance to the manual. For each for each error 1 point was given, the total possible score was 70 points. In addition, a new variable was included that is reading time. The TDE is a standardized test to a sample of the first segment of the elementary school and we thought that to be able to discriminate between good and poor readers it was necessary to also check reading fluency. This was done by measuring the time spent to reading words. Thus, the larger score in the accuracy part of the TDE the poorer de participant was in reading also the larger the reading time the more difficulty the reader presented.

2) Questionnaire of Reading Comprehension

This instrument observed basic processes of comprehension of texts. It was used a questionnaire containing open-ended questions concerning a small text. This questionnaire has been designed specifically for a sample of adolescents and it was the same used on Baptista et al. (2016) study. The total score in the text is 14 points.

3) Cloze Task

A cloze task was given to the students. The Cloze is a reading comprehension task composed of a small passage that has words omitted. For this version, every fifth word was excluded. Students were instructed that they had to fill in the blanks with only one word. One point was given to each corrected response.

2.2.2. Enjoyment of Reading and Home Literacy Measures

Enjoyment of reading was tested by a scale created by one of the authors. The scale was a Likert type scale of 7 items that aimed to assess reading enjoyment For each item the student could mark the options: totally agree, agree, neither agree or disagree or strongly disagree. It was a score of 1 to 4 for each item, starting at 1 for strongly disagree, 2 disagree, 3 to neither agree or disagree, 4 I agree totally agree. The total score possible on this scale was 28 points.

2.2.3. Home Literacy

The home Literacy scale was based in the one created by Chaney (1994) for young children. Although, the scales have not yet their psychometric characteristics tested, it has shown evidences of validity by the correlations shown with literacy skills. The scale was divided in two main parts. The first one describes students' care givers experiences with written language as well as how they provide the students with literacy experiences. The second part looked at the context of literacy the students observed or participated in infancy. One point was given to activities the student only observed and two points to those they participated. The maximum score in this scale was 64.

2.3. Procedure

This study followed strictly the ethical procedure for studies with human subjects regulated by the Brazilian National Health Committee and was approved under the process number 17563713.0.0000.5289. There was a previous contact with the teachers of eight classes of different courses of the health area in the school explain the objective of the study. The students of each class were interviewed at different times in the school itself. There were two 40-minute sessions approximately. At the first session it was clarified the purpose of the research, the procedures and strategies that would be used. Then subset of reading of the School Achievement test was carried out individually. This test consists in the reading seventy single words in a list in a single session. There is no time limit for completing this subtest, so the examiner computed with a stopwatch the time taken to read the words. They also answer the scale for reading enjoyment and home literacy. In the second session the reading comprehension test were carried out in groups.

2.4. Statistical Analysis

The data was explored through descriptive statistics. To answer the main questions on the study, correlations were carried out.

3. Results

Table 1 shows means reading enjoyment and standard deviations for each measure of reading achievement measures, the scale of reading enjoyment and perceived home-literacy measures. Analysis of the means showed that perceived home-literacy scores yield low scores for this sample. The mean score for the whole questionnaire was 26.45 this mean accounts for less than 50% of possible score in this questionnaire.

The data was checked for normality assumptions. Only the scale of Reading enjoyment presented a normal distribution, thus non-parametric bivariate correlations were carried out. **Table 2** shows Kolmogorov-Smirnov results.

The results of the correlations showed negative significant results between reading enjoyment and reading single words errors ($r = -0.37, p < 0.02$). Although, weak, the correlation showed that the greater reading enjoyment the less errors the students made. Perceived home literacy experiences correlated positively and significantly with

Table 1. Mean and standard deviation for reading, reading enjoyment and perceived home literacy measures.

	Mean	Standard Deviation
Time reading Single Words (seconds)	70.45	5.5
Single Word Reading Errors (Máx 70)	1.00	0.37
Cloze (Max 40)	27.03	0.72
Reading Enjoyment (max 28)	20.48	0.66
Reading Comprehension (max 14)	8.45	0.32
Home Literacy (max 64)	26.45	1.44

Table 2. Kolmogorov-Smirnov normality tests results.

	Kolmogorov-Smirnov		
	Statistic	N	Significance
Age	0.185	31	0.008
Reading Time	0.235	31	<0.001
Reading Errors	0.394	31	<0.001
Cloze	0.176	31	0.016
Reading Enjoyment	0.144	31	0.102
Reading Comprehension	0.164	31	0.032
Home Literacy	0.097	31	0.200

reading comprehension. Thus, teenagers that perceived to have more experiences with written language in infancy were better at reading comprehension.

To check whether book owning was related to reading performance and reading enjoyment the adolescents were asked about the number of books they owned. Two adolescents did not answer this question. The analysis was carried for 29 students in this case. Number of books owned correlated positively and significantly with reading enjoyment ($r = 0.61$, $p < 0.001$). The greater the number of books the greater the score on the reading enjoyment scale. However, they were not significant correlations between reading performance and number of books owned.

Reading enjoyment correlates positively and significantly with perceived home literacy experiences ($r = 0.38$, $p < 0.02$). Students with high scores in the perceived home literacy scale had higher scores in the reading enjoyment scale (**Table 3**).

4. Discussion

The present research aimed to investigate the reading performance of teenager students, seeking to verify whether previous experiences with reading and home literacy had any influence on these students reading achievement. It investigated also if these students reading enjoyment was associated with reading performance. There has been little research with this population and knowing more about the factors related to their reading achievement helps in the development of intervention aiming to improve their

Table 3. Spearman correlation results for reading, reading enjoyment and perceived home literacy measures.

R	Read. Time	Read. Errors	Cloze	Read. Comp.	Read. Enjoym.	Home Literacy	Number of Books at Home
Age	-0.28	-0.02	-0.18	0.001	-0.14	-0.14	0.02
Reading Time		0.54**	-0.13	-0.10	0.04	-0.07	-0.01
Reading Errors			-0.25	-0.20	-0.37*	-0.29	-0.10
Cloze				0.13	0.01	-0.12	-0.02
Reading Comp.					0.17	0.32*	0.01
Reading Enjoym.						0.38*	0.61**
Home Literacy							0.25

* $p < 0.05$; ** $p < 0.01$.

reading achievement.

The literature reviewed supported expectations that readers with better performance would have parents or guardians that encourage the habit of Reading. This would occur through watching parents own reading practices in daily life, and in interactive situations that occur between parents and children, like reading story books for their children, writing shopping lists, working through recipes and other leisure situations that evolves print materials.

Cardoso and Mota (2015) defend the idea that the child should have experiences with reading before school starts and that those experiences relate to reading for pleasure, because it makes the practice of reading as something important in children's life. Cardoso and Mota (2015) also consider the role of parents as references to their children. Parentes can introduce children to reading and to the pleasure of reading by offering print experiences in different contexts and in different daily situations.

Our data support those claims. Correlations showed the association between perceived experiences with reading—home literacy—and performance on tasks measuring this ability. Those were significant for the association between reading comprehension and home literacy ($r = 0.32$, $p < 0.04$). These results corroborate the hypothesis that the better performance of readers in the understanding of a text, the greater the amount of experiences with reading they had in infancy as reported by them.

The results seem also to confirm our hypothesis that reading performance is related to pleasure in Reading. The correlations were significant and negative between the scores on the questionnaire for pleasure of Reading the number of errors obtained in the TDE ($r = -0.37$, $p < 0.02$). There were also significant correlations between prior experiences in reading—home literacy—and the reading pleasure questionnaire ($r = 0.38$, $p < 0.02$).

Taken together these results suggest a model that should be investigated with a larger sample and with specific statistics such as path analysis. This data suggest, an indirect model for the development of reading skills. That is, previous experiences in reading (home literacy) may affect pleasure in reading. In turn pleasure in reading may help

reading achievement as it was shown by fewer errors been made in the TDE.

It is also important to consider that the number of books that the student have at home positively correlated with the pleasure in reading. Thus, the greater the pleasure in reading, the greater was the number of books that the student had at home. One limitation of this study was that it is based on correlational data. Correlational data do not indicate causal relationships. For instance, one can argue that enjoying reading leads to having more books at home but it is also plausible to think that having more books at home can help you enjoy Reading. Future research should take care of this methodological issue.

Another limitation of the study was sample size of the study that was small. Although it was large enough to yield statistically significant results large samples are required to corroborate the results with model testing statistics.

Despite the limitations of the study implications for educational policies can be drawn. First the study suggests that early experiences with literacy continue to affect children's performance in reading on late grades. Thus, policies that encourage parents and children's guardians to promote literacy experiences should be carried out. Participants that reported having these experiences showed better reading achievement. Those policies can be intervention with adults as proposed by [Timons \(2008\)](#) or promoted by schools as carried out by [Neuman \(1999\)](#). Moreover, Longitudinal studies that follow access to books and reading achievement also would help to establish a possible causal connection between access to books and reading for pleasure and school achievement.

5. General Conclusion

In summary, one should reflect upon what parents can do very informally for their children when at home and that how these experiences may reflect later at formal learning. Having books at home and letting the child try print materials can contribute to the development of a positive bond with the learning facilitating their future performance in school. Our data suggest that the child that grows with contact with books and reading experiences, before starting their formal learning at school will become better readers as teenagers. Thus, making reading as a part of children's daily lives and associating it with pleasure experiences reflect on how they deal with reading in the future. This may be because reading would not be seen as a boring obligation or simple homework unrelated to any pleasure or meaning.

Adolescents in secondary school may still have reading problems and may need support to be successful in their studies. Although, intervention studies are needed to examine effective ways to remediate reading difficulties in adolescence, prevention of reading problems is a better way to address this issue. Evidence-based studies investigating the causes of reading problems are needed. A comprehensive model of reading acquisition should include social and cultural factors as suggested by [Chiu and McBride-Chen \(2006\)](#). Looking at early reading experience as factor that may prevent reading problems is one of the contributions of the present research.

References

- Baptista, R. M., Freitas, P. V., Peçanha, A. P., Soares, A. B., Mettrau, M. B., & Mota, M. P. E. (2016). Reading Practice and Text Comprehension in 6th and 7th Years of Elementary School. *Estudos de Psicologia (Campinas)*, 33, 173-182. <https://doi.org/10.1590/1982-027520160001000017>
- Brooks-Gunn, J., Duncan, G. J., & Britto, P. R. (1999). Are Socioeconomic Gradients for Children Similar to Those for Adults? Achievement and Health of Children in the United States. In D. P. Keating, & C. Hertzman (Eds.), *Developmental Health and the Wealth of Nations* (pp. 94-124). New York: Guilford.
- Cardoso, C. V., & Mota, M. M. P. E. (2015). Home-Literacy and Pre-Cursors of Literacy. *Estudos e Pesquisas em Psicologia*, 15, 708-724.
- Chaney, C. (1994). Language Development, Metalinguistic Awareness and Emergent Literacy Skills of 3 Years-Old Children in Relation to Social Class. *Applied Psycholinguistics*, 15, 371-394. <https://doi.org/10.1017/S0142716400004501>
- Kairaluoma, L., Torppa, M., Westerholm, J., Ahonen, T., & Aro, M. (2013). The Nature of and Factors Related to Reading Difficulties among Adolescents in a Transparent Orthography. *Scientific Studies of Reading*, 17, 315-332. <https://doi.org/10.1080/10888438.2012.701257>
- Chiu, M., & McBride-Chang, C. (2006). Gender, Context, and Reading: A Comparison of Students in 43 Countries. *Scientific Studies of Reading*, 10, 331-362. https://doi.org/10.1207/s1532799xssr1004_1
- Mota, M. M. P. E. (2014). Home Literacy and Literacy—A Systematic Literature Review. *Psicologia Argumento (PUCPR. Online)*, 32, 109-115.
- Mota, M. M. P. E., Baptista, R. M., & Amaral, N. S. (2014). Social Interaction and Reading: The Role of the Family in the Development of Written Language. In A. Roazzi, M. J. Santos, & F. V. Paula (Org.). *Reading and Writing Acquisition—Theory and Practice <Aprendizagem da Leitura e Escrita—Teoria e Prática>* (pp. 109-125). Curitiba: Juruá.
- Neuman, S. B. (1999). Books Make a Difference: A Study of Access to Literacy. *Reading Research Quarterly*, 34, 286-310. <https://doi.org/10.1598/RRQ.34.3.3>
- Oliveira, K., & Santos, A. (2008). Intervention Study for Reading Comprehension in University. *Interação em Psicologia*, 12, 169-177.
- Oliveira, K. (2011). Considerations about Reading Comprehension in Higher Education. *Psicologia: Ciência e Profissão*, 31, 690-701. <https://doi.org/10.1590/S1414-98932011000400003>
- Stein, L. (1994). *School Achievement Test*. São Paulo: Casa do psicólogo.
- Strasser, K., & Lissi, M. R. (2009). Home and Instruction Effects on Emergent Literacy in a Sample of Chilean Kindergarten Children. *Scientific Studies of Reading*, 13, 175-204. <https://doi.org/10.1080/10888430902769525>
- Timons, V. (2008). Challenges in Researching Family Literacy Programs. *Canadian Psychology*, 49, 96-102. <https://doi.org/10.1037/0708-5591.49.2.96>
- Yeung, S. S., & King, R. B. (2016). Home Literacy Environment and English Language and Literacy Skills among Chinese Young Children Who Learn English as a Second Language. *Reading Psychology*, 37, 92-120. <https://doi.org/10.1080/02702711.2015.1009591>

Submit or recommend next manuscript to SCIRP and we will provide best service for you:

Accepting pre-submission inquiries through Email, Facebook, LinkedIn, Twitter, etc.

A wide selection of journals (inclusive of 9 subjects, more than 200 journals)

Providing 24-hour high-quality service

User-friendly online submission system

Fair and swift peer-review system

Efficient typesetting and proofreading procedure

Display of the result of downloads and visits, as well as the number of cited articles

Maximum dissemination of your research work

Submit your manuscript at: <http://papersubmission.scirp.org/>

Or contact ce@scirp.org